



DEPARTMENT OF HEALTH AND HUMAN SERVICES

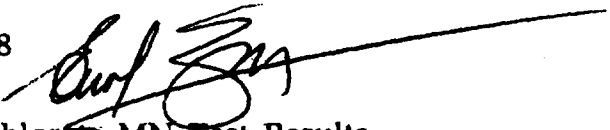
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## Memorandum

**ZEIGER, 1998b**

Date: December 23, 1998  
From: Errol Zeiger   
Subject: Ammonium Perchlorate MN Test Results  
To: Annie Jarabek

Male B6C3F1 mice were treated i.p with 125, 250, 500, 1000, 1500, and 2000 mg/kg ammonium perchlorate in buffered saline, plus solvent and positive (cyclophosphamide) controls. Five mice per group were injected daily for 3 consecutive days, and were sacrificed 24 hrs after the last injection. Their femoral bone marrow was removed and the polychromatic erythrocytes (PCE) scored for micronuclei (MN). All testing and scoring were done under code.

All animals in the 1500 and 2000 mg/kg groups died after the first i.p. injection, and 4/5 animals in the 1000 mg/kg group died after the second i.p. injection; the fifth animal was sacrificed and not scored for MN. All animals in the 125, 250, and 500 mg/kg groups survived the treatment; 2000 PCE's were scored per animal for MN.

No increases in MN-PCE were seen at any of the test doses; the positive control yielded a significant increase. No bone marrow toxicity was seen, as indicated by the percent PCE.

| dose         | MN -PCE/1000* | %PCE |
|--------------|---------------|------|
| 0 (solvent)  | 3.00 ± 0.51   | 46.6 |
| 125 mg/kg    | 3.10 ± 0.36   | 51.7 |
| 250 mg/kg    | 3.20 ± 0.50   | 55.6 |
| 500 mg/kg    | 2.10 ± 0.26   | 49.2 |
| Pos. control | 19.60 ± 1.82  | 56.5 |

\* mean ± S.E.M.

The results of this study are consistent with those reported in the Perchlorate Study Group report (Study No. 6100-001). In that study, which used gavage administration, the highest dose that could be scored was 1000 mg/kg.